REMARKS

Favorable reconsideration is respectfully requested.

The claims are 25 to 41 with claims 25 to 32 being withdrawn from consideration.

With regard to the new set of claims, support is given below as a paragraph number in the published US application (2002/0098340 A1).

Claim 33 is equivalent to previous claim 17 amended to recite that the ethylenically unsaturated compound plasticizes the coating (paragraph 019) and to delete the phrase "unpolymerizable with radiation" to which the Examiner objected.

Claim 33 is a new claim added to emphasize that the ethylenically unsaturated compounds are held within the polymer matrix of the coating (paragraph 033) and so cannot self-polymerize.

Claims 34 to 41 are the same as old claims 18 to 24 with consequent renumbering.

Claims 17 to 24 have been rejected under 35 U.S.C. 112, first paragraph on the ground that the term "unpolymerizable with radiation" is not supported by the originally filed specification.

Claims 17 to 24 have also been rejected as being non-enabled in that the specification does not describe a method to render the polymer "unpolymerizable with radiation".

In reply, it is an inherent property of the coatings described in the claims that they are unpolymerizable with radiation even if not explicitly stated in the original specification. It is for example implicit from the description (paragraph 033) which describes that the ethylenically unsaturated compound is included in one polymer matrix.

The term "unpolymerizable with radiation" had been employed to distinguish the present claims from the cited prior art such as US 5,219,641 (Mehta), of record.

In this regard, the oligomers in Mehta, do not act as plasticizers. Before polymerization of the Mehta coat formulation, there is a polymerizable mixture of oligomers and monomer and no polymers are present which can be plasticized After the coat has been polymerized, the oligomers and monomers have been reacted to form the polymer and are not available to plasticize the polymer coat. See the response of April 30, 2001 at pages 6 and 7 in this regard.

Definitions of the terms "oligomer" and "polymer" are included in the Appendix of this response.

The rejection also contends that the polymers described in the claimed films are inherently radiation polymerizable and that the specification provides no teaching as to how to make them unpolymerizable with radiation. In reply, the claim relates to coated films not the components. It is the coatings which are unpolymerizable, and it is not relevant whether individual components within the coating may or may not be polymerizable in other contexts such as alone or when formulated with other ingredients.

The film coating of the present invention consists essentially of only two ingredients: the water dispersible polymer (to provide a smooth surface) and the ethylenically unsaturated compound (as a plasticiser and to bind to UV ink on printing). In the coating, the ethylenically unsaturated compounds act as plasticisers and so are dispersed within the polymeric coat. No photoinitiators or other monomers are present. In this regard, the ethylenically unsaturated compounds within the coating cannot self-polymerize as they are held in situ within the coat.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact the undersigned at the telephone number below.

Respectfully submitted,

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APPENDIX

Definitions from IUPAC Compendium of Chemical Terminology, 2nd edition (1997)
See http://www.iupac.org/publications/compendium/index.html

oligomer molecule
A molecule of intermediate relative molecular mass, the structure of which essentially comprises a small plurality of units derived, actually or conceptually, from molecules of lower molecular mass.
Notes:
1. A molecule is regarded as having an intermediate relative molecular mass if it has properties which do vary significantly with the removal of one or a few units.
2. If a part of the whole of a molecule has an intermediate relative molecular mass and essentially comprises a small plurality of units derived, actually or conceptually, from molecules of lower molecular mass, it may be described as oligomeric, or by oligomer used adjectivally.
1996, *68*, 2289

macromolecule (polymer molecule)
A molecule of high relative molecular mass, the structure of which essentially comprises the multiple repetition of units derived, actually or conceptually, from molecules of low relative molecular mass.
Notes:
1. In many cases, especially for synthetic polymers, a molecule can be regarded as having a high relative molecular mass if the addition or removal of one or a few of the units has a negligible effect on the molecular properties. This statement fails in the case of certain macromolecules for which the properties may be critically dependent on fine details of the molecular structure.
2. If a part of the whole of a molecule has a high relative molecular mass and essentially comprises the multiple repetition of units derived, actually or conceptually, from molecules of low relative molecular mass, it may be described as either macromolecular or polymeric, or by polymer used adjectivally.
1996, *68*, 2289